

Your PI Service Bus Partner



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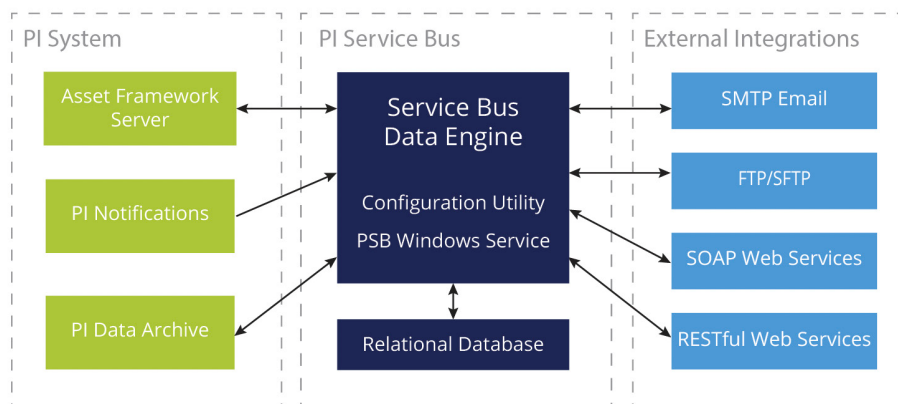
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AVEVA PI SYSTEM SOLUTIONS

PI Service Bus

Easily integrate your PI System data.

Data has never been more valuable – or plentiful. Every year US companies produce enough data to fill 10,000 Libraries of Congress annually, but 88% of it is ignored. The Process Innovations PI Service Bus (PSB) helps you easily capture and use more of the data your monitoring solutions, software, and enterprise platforms generate each day. It automatically captures, transforms, and delivers relevant data across systems to support the tools and processes you rely on for actionable insight. Save time and boost the ROI of your technology investments with this powerful tool.



PI Service Bus Components

Configuration Utility

The PSB Configuration Utility makes it easy to set up sequences of actions then test them with connections to your external systems before storing them in the SQL Server database.

PSB Windows Service

The PSB Windows Service runs in the background and reads the configuration from the SQL server. It supports multiple instances of the Configuration Utility on different machines and executes your configured actions as needed.

Flexible Data Options

Flexible data options allow you to connect to a variety of external systems. The PI Service Bus parses XML and JSON responses, making the results available for use in subsequent integration and analysis steps.

- **SOAP Web Services:** Send requests to any SOAP web service.
- **RESTful Web Service:** Send requests to any RESTful web service that uses JSON.
- **Relational Database:** Use SELECT, INSERT, and UPDATE statements with any ODBC compliant database. Simply install the relevant database drivers to get started.
- **FTP/SFTP:** Read, create, or write text, CSV, or XML files to and from both local file systems and external servers.
- **Email (SMTP):** Easily distribute emails via an external SMTP server. Text, CSV, or XML files can all be attached.
- **PI Asset Framework Table Query:** Use SQL syntax to read from or write to AF tables. The PI Service Bus supports SELECT, INSERT, and UPDATE statements.
- **PI Asset Framework Attributes and PI Points:** Write values directly to and from AF Attribute and PI Point fields. The system automatically creates Attributes and PI Points if they do not exist.

How Teams Like Yours Use the PI Service Bus

Here are some of the real-world data integrations our users have enabled with the PI Service Bus:

Condition-based Maintenance in SAP

Set up daily PI Asset Framework queries in the PI Service Bus to capture run hours logged for each of your assets (pumps, tanks, etc.) and automatically send them to your SAP web service to support condition-based maintenance initiatives.

Automated Manual Logging in SAP

When users save data to PI using the PI Manual Logger, one of our process plugins identifies the new value, triggers an event frame and sends a PI notification with the new value to the PI Service Bus. It automatically parses the notification and pushes the value directly to your SAP web service. It can also recursively search your Asset Framework structure to identify and update each asset using a specific template.

Timely Notifications in SAP

PI Service Bus can capture simple PI Notification SOAP messages, transform them into complex SAP-compliant SOAP messages, and route them to your SAP notification web service.

PI Data Email Notifications

Send emails with text, CSV or XML attachments via an external SMTP server.

PI Notification Work Orders for AWS

The PI Service Bus fully supports integrations with Amazon Web Services. PSB captures simple SOAP message Pi Notification work orders, transforms them into complex JSON messages, and sends them to the RESTful web API in AWS.

Smart Work Orders in Maximo

Triggering new work orders in Maximo based on real-time environmental conditions (like a vibration sensor reaching a critical level) is easy with PI Service Bus. It captures and parses the PI notification from the event frame then sends the value directly to your Maximo work order web service. Maximo responds with the ID and status of the new work order, which PI Service Bus writes to a SQL server table and imports into the Asset Framework. The PI Service Bus checks Maximo daily to keep the work order status updated in AF and ensure PI does not create additional event frames while the existing work order is still open.

Meter Data to Maximo

The PI Service Bus can poll PI Notifications with daily meter data readings to capture simple SOAP messages and transform them into complex Maximo-compliant SOAP messages. Daily Syncs for Enterprise Asset Management Data The PI Service Bus makes it easy to configure a daily query of your EAM grid web service each day to retrieve key performance parameters and automatically write them to PI Points for easy access within your PI System and any other services integrated with the service bus.

Enriched Locational Marginal Pricing

Add up-to-date LMP pricing data to your PI System. PI Service Bus can periodically query your LMP data sources and automatically create corresponding Asset Framework Elements and Attributes as new LMP nodes are added to the database.

Pulverizer Monitoring Data to SAP

Use PI Service Bus to capture weekly pulverizer measurement point readings in PI Notifications, transform them from simple SOAP messages to complex SAP-compliant SOAP messages, and record the readings for simplified tracking in SAP.



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'Plugin' to Better Operating Performance

Are you ready to get more out of your PI System, without a costly and complex custom project? Then you're ready for our PI System plugins. Contact us today to learn how you can add our plugins to your system, and start operating more safely, effectively, and efficiently.